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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/535,052

12/27/2005

Ralf Hoffmann

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29450

7590

12/16/2008

BARLEY SNYDER, LLC

1000 WESTLAKES DRIVE, SUITE 275

BERWYN, PA 19312

EXAMINER

ROJAS, BERNARD

ART UNIT

PAPER NUMBER

2832

NOTIFICATION DATE

DELIVERY MODE

12/16/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/535,052	Applicant(s) HOFFMANN ET AL.	
	Examiner BERNARD ROJAS	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05132005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Species 1, Figures 1-5, claims 1-9 and 11-20, in the reply filed on 09/08/2008 is acknowledged.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "wherein a free end of the spring contact is movably received between injection molded webs" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-9, 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schedele [US 4,185,163] in view of Kern et al [US 6,252,476].

Claim 1, Schedele discloses a magnet system for a relay [figures 5 and 6] comprising: a core [figure 5, center portion of multi-component yoke 25 through the coil] partially enclosed by a coil [24]; a yoke [left portion of multi-component yoke 25] having a first yoke leg attached to a first end of the core [left portion of multi-component yoke

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25 perpendicular to the core] and a second yoke leg extending parallel to the core [left portion of multi-component yoke 25 above the coil 24], the second yoke leg having an armature mounting portion [figure 5] formed on an upper side of the second yoke leg remote from the coil; a pole [right portion of multi-component yoke 25] having a first pole leg [right portion of multi-component yoke 25 perpendicular to the core] connected to a second end of the core and a second pole leg extending parallel to the core [right portion of multi-component yoke 25 above the coil 24], the second pole leg having an upper surface substantially aligned with the armature mounting portion such that when an armature [26] is mounted on the armature mounting portion, a working air gap is formed between a coil-side armature face and the upper surface of the second pole leg [figure 5]; a fixed contact carrier [31] with a fixed contact [29];

Schedele fails to teach that the magnet system is extrusion coated with a plastic material, the coil, the yoke, the pole, and the fixed contact carrier being embedded in the plastic material.

Kern et al teaches an electromagnetic relay wherein the magnet system is extrusion coated with a plastic material [11, 31], the coil [34], the yoke [61], the pole [62], and the fixed contact carrier being embedded in the plastic material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to extrusion coat the magnet system Schedele as shown by Kern et al. in order to increase the reliability of the relay by protecting the components from wear and tear by sealing them from the external environment.

Claim 2, Schedele in view of Kern et al. discloses the claimed invention except for the upper surface of the second pole leg includes a crowned pole face. It would have been obvious to one of ordinary skill in the art at the time the invention was made to alter the upper surface of the second pole leg in order to facilitate mounting the armature to that surface of the pole leg. Since applicant has not disclosed that a crowned surface solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the arrangement shown by Schedele.

Claim 3, Schedele discloses the magnet system according to claim 1, wherein the yoke is L-shaped [left portion of multi-component yoke 25, figure 5].

Claim 4, Schedele discloses the magnet system according to claim 1, wherein the pole is L-shaped [right portion of multi-component yoke 25, figure 5].

Claim 5, Schedele in view of Kern et al. discloses the claimed invention exception of the first pole leg being connected to the core by a U-shaped recess. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the shape of the recess used to connect the first pole leg to the core. Since applicant has not disclosed that using a U-shaped recess solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the arrangement shown by Schedele.

Claim 6, Schedele discloses the magnet system according to claim 1, wherein an edge of the armature mounting portion and an edge of the second pole leg are

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positioned such that a gap is formed therebetween that is bridged by the armature [figure 5].

Claim 7, Schedele discloses the magnet system according to claim 1, wherein the fixed contact arranged on the fixed contact carrier is substantially aligned with the second pole leg [figure 5].

Claim 8, Schedele discloses the magnet system according to claim 7, wherein the fixed contact carrier is offset in a direction of the core [figure 5].

Claim 9, Schedele discloses the magnet system according to claim 1, wherein the magnet system is mounted on a coil body [the bobbin for coil 24, figure 5].

Claim 11, Schedele discloses an electromagnetic relay [figure 5 and 6] comprising: a magnet system having a core body with a core [figure 5, center portion of multi-component yoke 25 through the coil] partially enclosed by a coil [24]; a yoke [left portion of multi-component yoke 25] having a first yoke leg [left portion of multi-component yoke 25 perpendicular to the core] attached to a first end of the core and a second yoke leg [left portion of multi-component yoke 25 above the coil 24] extending parallel to the core having an armature mounting portion [figure 5]; a pole [right portion of multi-component yoke 25] having a first pole leg [right portion of multi-component yoke 25 perpendicular to the core] connected to a second end of the core and a second pole leg [right portion of multi-component yoke 25 above the coil 24] extending parallel to the core; the magnet system having a fixed contact [29] arranged on a fixed contact carrier [31] substantially aligned with the second pole leg [figure 5], the fixed contact carrier being offset in a direction of the core and arranged in the coil body [figure 5].

Schedele fails to teach that the magnet system is extrusion coated with a plastic material, the coil, the yoke, the pole, and the fixed contact carrier being embedded in the plastic material.

Kern et al teaches an electromagnetic relay wherein the magnet system is extrusion coated with a plastic material [11, 31], the coil [34], the yoke [61], the pole [62], and the fixed contact carrier being embedded in the plastic material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to extrusion coat the magnet system Schedele as shown by Kern et al. in order to increase the reliability of the relay by protecting the components from wear and tear by sealing them from the external environment.

Claim 12, Schedele discloses the electromagnetic relay according to claim 11, wherein a sheet-like armature [26] is pivotally mounted on the armature mounting portion, the armature having a spring contact [28] with a switching contact positioned adjacent to the fixed contact [figure 5].

Claim 13, Schedele discloses the electromagnetic relay according to 11, wherein the fixed contact carrier is held by side portions in pockets of a side arm of the coil body [figure 5].

Claim 14, Schedele discloses the electromagnetic relay according to claim 13, wherein the pole is held between the side arm and a first flange of the coil body [figure 5].

Claim 15, Schedele discloses the electromagnetic relay according to claim 12, wherein a free end of the spring contact [28] is movably received between injection molded webs [figure 5].

Claim 16, Schedele discloses the electromagnetic relay according to claim 11, wherein the second pole leg has an upper surface substantially aligned with the armature mounting portion [figure 5]

Claim 17, Schedele discloses the electromagnetic relay according to claim 16, wherein an edge of the armature mounting portion and an edge of the second pole leg are positioned such that a gap is formed therebetween that is bridged by the armature [figure 5].

Claim 18, Schedele in view of Kern et al. discloses the claimed invention exception of the shape of the spring contact. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the shape of the spring contact in order to vary to pressure on the closed contacts in order to reduce contact welding.

Claims 19 and 20, the method for producing a magnet system for an electromagnetic relay is obvious in the product structure as disclosed in claims 1-9 and 11-18 above by Schedele in view of Kern et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BERNARD ROJAS whose telephone number is (571)272-1998. The examiner can normally be reached on M and W-F, 10:00-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elvin G Enad/
Supervisory Patent Examiner, Art Unit 2832

Br
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